What Is Claimed Is:

1.   A method for implementing a modified radio link protocol (RLP) in a mobile communications device, the method comprising the steps of:

receiving a plurality of frames; and

5   determining that a received frame of the plurality of frames violates a predetermined pattern of frames expected to be received.

2.   The method of claim 1 further comprising the step of communicating to a sending device that the received frame violates the

10   predetermined pattern.

3.   The method of claim 2 wherein the step of communicating comprises the step of generating a Smart NAK comprising a value corresponding to an expected sequence number of the received frame.

15

4.   The method of claim 3 wherein the RLP maintains a current frame pattern and wherein the step of determining comprises the steps of:

determining that the received frame of the plurality of frames is a DTX frame and a data frame was expected; and

20   marking a next DTX frame a predetermined number of frames ahead in the current frame pattern as a Retransmission frame.
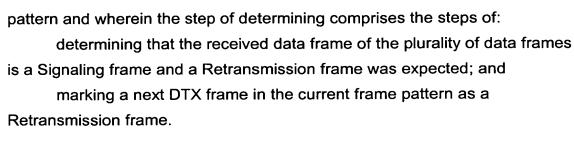
5.   The method of claim 1 wherein the RLP maintains a current frame pattern and wherein the step of determining comprises the steps of:

25   determining that the received frame of the plurality of frames is a Signaling frame and a data frame was expected; and

marking a next DTX frame in the current frame pattern as a data frame.

30

6.   The method of claim 1 wherein the RLP maintains a current frame pattern and wherein the step of determining comprises the steps of:

determining that the received data frame of the plurality of data frames is a Signaling frame and a Retransmission frame was expected; and

marking a next DTX frame in the current frame pattern as a Retransmission frame.

7.   The method of claim 1 wherein the RLP maintains a current frame pattern and wherein the step of determining comprises the steps of:

determining that the received data frame of the plurality of data frames is a Retransmission frame and a data frame was expected; and

marking a first Retransmission frame in the current frame pattern as a DTX and marking a next DTX frame in the current frame pattern as a data frame.

8.   The method of claim 1 wherein the RLP maintains a current frame pattern and wherein the step of determining comprises the steps of:

determining that the received data frame of the plurality of data frames is a Retransmission frame and a DTX frame was expected; and

marking a next Retransmission frame in the current frame pattern as a DTX frame.

9.   The method of claim 1 wherein the RLP maintains a current frame pattern and wherein the step of determining comprises the steps of:

determining that the received data frame of the plurality of data frames is a data frame and a DTX frame was expected; and

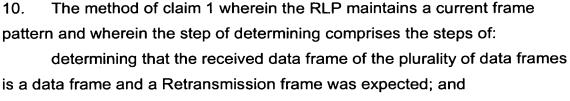marking a next data frame in the current frame pattern as a DTX frame.

10.   The method of claim 1 wherein the RLP maintains a current frame pattern and wherein the step of determining comprises the steps of:

determining that the received data frame of the plurality of data frames is a data frame and a Retransmission frame was expected; and

marking a next data frame in the current frame pattern as a Retransmission frame.

11.   The method of claim 1 wherein the RLP maintains a current frame pattern and wherein the step of determining comprises the steps of:

determining that the received data frame of the plurality of data frames is a DTX frame and a Retransmission frame was expected; and

marking a next DTX frame in the current frame pattern as a Retransmission frame.

12.   The method of claim 1 wherein the predetermined pattern of frames is sent to the mobile communications device before the plurality of frames is received.

13.   The method of claim 1 wherein the predetermined pattern of frames is learned by the mobile communications device by observing a traffic stream.

14.   A method for implementing a modified radio link protocol (RLP) in an infrastructure equipment, the method comprising the steps of:

receiving a plurality of frames; and

determining that a received frame of the plurality of frames violates a

5   predetermined pattern of frames expected to be received.

15.   The method of claim 14 further comprising the step of communicating that the received frame violates the predetermined pattern.

10   16.   The method of claim 15 wherein the step of communicating comprises the step of generating a Smart NAK comprising a value corresponding to an expected sequence number of the received frame.

17.   The method of claim 16 wherein the RLP maintains a current frame

15   pattern and wherein the step of determining comprises the steps of:

determining that the received frame of the plurality of frames is a DTX frame and a data frame was expected; and

marking a different DTX frame a predetermined number of frames ahead in the current frame pattern as a Retransmission frame.

20